



# FortiExtender 20B

## QuickStart Guide



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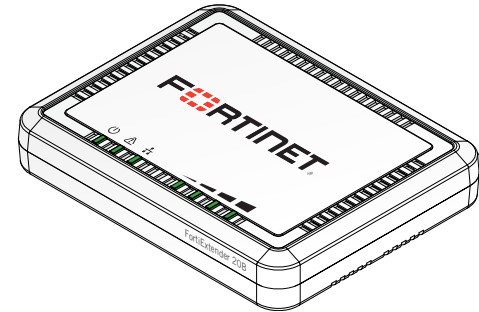
# Package Contents

Fortinet's consolidated security solutions provide an integrated set of core security and network services. The FortiExtender is a wireless WAN extender for 3G/4G modems.

Your box contains the following:

FortiExtender 20B  
QuickStart Guide  
USB Extension Cable  
Ethernet Cable  
Ethernet Cable

Security Case  
Security Case Key  
Wall Mount Kit



USB Extension Cable



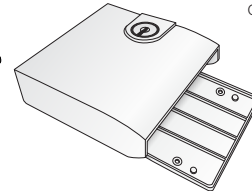
Ethernet Cable



Wall Mount Kit



Security Case



Security Case Key



QuickStart Guide

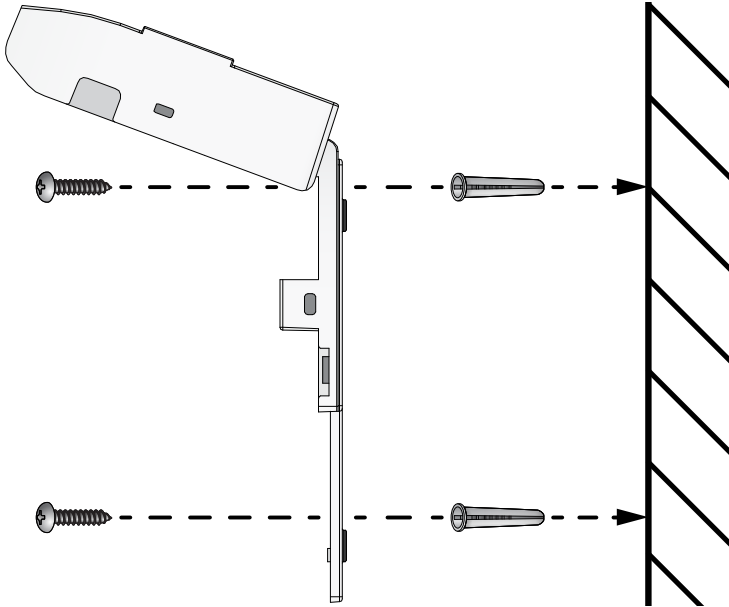


# Mounting Your Device

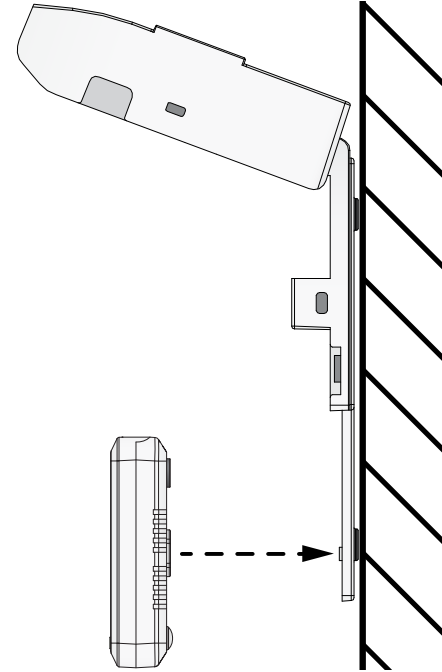
Using the provided hardware, the FortiExtender unit can be mounted on a wall.

## To mount the unit:

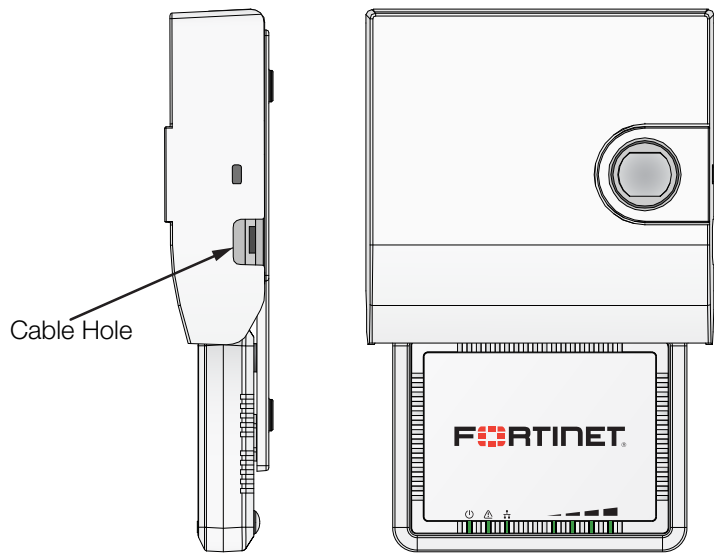
1. Select an appropriate mounting location, then, using the security case as a template, mark the locations on the wall where the anchors will be located.



2. Drill holes into the wall in the marked locations with an appropriately sized drill bit, then insert the four provided anchors into the holes.
3. Attach the security case to the wall using the four provided screws.
4. Mount the FortiExtender onto the security case mounting knobs and ensure that it is mounted securely.



5. Connect the device as described in “Connecting Your Device” on page 6.
6. Ensure that any cables connected to the device are positioned to comfortably exit the security case via the cable hole on the side of the case.
7. Close the security case and lock it using the security case key.

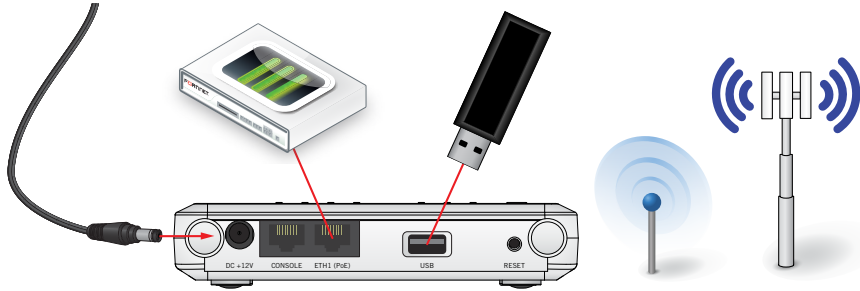


8. Use the Kensington security slot to attach a cable lock (cable lock is not included) to protect your FortiExtender device from unauthorized removal.

You can now proceed with configuring your FortiExtender device.

# Connecting Your Device

**Note:** Supported modems and ISPs vary by FortiExtender and FortiGate firmware. For the hardware compatibility matrix, see the product [data sheet](#) and firmware [release notes](#).



## To connect the FortiExtender unit:

1. Insert a supported 3G/4G modem into the USB port on the device, either directly or using the provided USB extension cable.
2. Insert the provided Ethernet cable into the ETH1 port on the device.
3. Insert the other end of the Ethernet cable into a PoE LAN port on an appropriate FortiGate, FortiWiFi, or FortiSwitch device.

4. Optionally, if you are not using PoE, plug the optional power adapter into the rear of the unit then into an appropriate electrical outlet.
5. By default, FortiExtender configuration is hidden in the FortiGate Web-based Manager. Enable it using the following commands in the FortiGate Command Line Interface (CLI):

```
config system global
    set fortiextender enable
    set wireless-controller enable
end
```

6. The Control And Provisioning of Wireless Access Points (CAPWAP) service must be enabled on the port to which the FortiExtender unit is connected using the following CLI commands:

```
config system interface
    edit [port]
        set allowaccess capwap
    end
```

You can now proceed with configuring your FortiExtender unit.

For more information, visit the Fortinet Document Library, <http://docs.fortinet.com>.

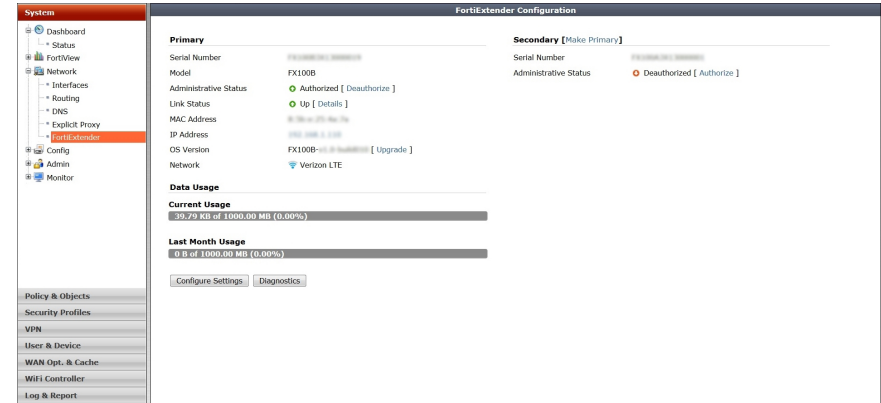
# Configuring Your Device

The FortiExtender unit is designed to require no configuration in most networks. Once linked, the FortiGate will automatically control the FortiExtender unit and its modem via a CAPWAP tunnel. Automatic configuration works if the unit is on the same layer 2/3 network and subnet as the FortiGate or FortiWiFi unit.

If the FortiExtender's IP address cannot be determined automatically, or if the network uses static IP addresses, it can be configured to use a static IP address.

## To automatically enable the FortiExtender:

1. Connect the FortiExtender unit as described in “Connecting Your Device” on page 6, the unit will request an IP address from the DHCP server.
2. In the FortiGate Web-based Manager, go to *Network > FortiExtender* and select *Authorize* for the the added FortiExtender.
3. Once the device has been authorized, select *Configure Settings* to configure the FortiExtender settings as needed.



## To enable the FortiExtender with a static IP address:

1. Connect the FortiExtender unit to a separate private switch or hub, or directly to your management computer via a cross-over cable.
2. Configure the management computer to be on the same subnet as the internal interface of the FortiExtender unit by changing the IP address of the management computer to *192.168.1.1* and the netmask to *255.255.255.0*.
3. Start a browser of your choice and browse to *192.168.1.2*.
4. Type *admin* in the *Name* and *Password* fields, then press Enter.
5. In the FortiExtender Web-based Manager, go to *System > Connection*.

System

Connection Manager

Connection

Firmware

Administrator

Modem

Status

Management IP: 192.168.1.2

Management Netmask: 255.255.255.0

Connection Type: ☐ DHCP ☒ Static

FortiGate IP: 10.10.10.1

FortiExtender IP: 10.10.10.2

FortiExtender Netmask: 255.255.255.0

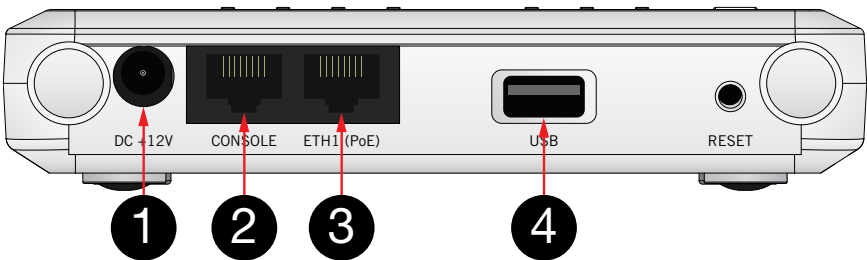
FortiExtender Gateway: 10.10.10.2

Submit Refresh

6. In the *Connection Type* field select *Static*, then enter the required IP addresses, netmask, and gateway.
7. Select *Submit* to apply your changes.
8. When finished, disconnect the device from the management computer.
9. In the FortiGate Web-based Manager, go to *Network > FortiExtender* and select *Authorize* for the added FortiExtender.
10. Once the device has been authorized, select *Configure Settings* to configure the FortiExtender settings as needed.

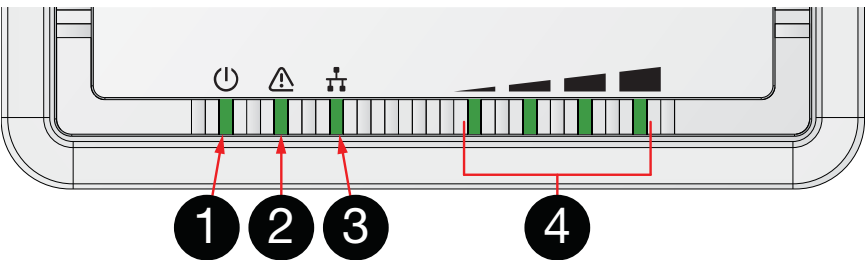


# Technical Specifications



#	Interface	Type	Description
1	Power		12V DC, 1.25A power adapter connection.
2	Console	RJ-45	Not in use.
3	ETH1 (PoE)	RJ-45	Gigabit Ethernet port with PoE PD support, 802.3af/at compliant.
4	USB	USB-A	USB port for connecting your 3G/4G modem.

# LED Specifications



#	LED	State	Description
1	Power	Green	The unit is on.
		Off	The unit is off.
2	Status	Green	The unit has successfully connected to the controller and ISP.
		Flashing Green	The unit is connecting to the ISP.
		Amber	The unit has successfully connected to the controller but not the ISP.
		Flashing Amber	The unit is connecting to the controller.
		Off	No connection
3	LAN	Green	Port is connected.
		Flashing Green	Port is transmitting and receiving data.
		Off	Port is not in use.
4	Wireless	One LED	Weak signal.
		Two or Three LEDs	Moderate signal.
		Four LEDs	Strong signal.

# Cautions and Warnings

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## Environmental specifications

**Operating Temperature** – If this device is installed in a closed or multi-unit rack assembly, the rack's ambient temperature may be greater than the room's ambient temperature. Make sure the rack environment is compatible with the manufacturer's maximum rated ambient temperature ( $T_{ma}$ ).

**Température ambiante élevée** — Si cet appareil est installé dans un cabinet fermé, la température ambiante du cabinet peut être supérieure à la température ambiante de la pièce. Assurez-vous que l'environnement dans le cabinet est compatible avec la température ambiante maximale du fabricant ( $T_{ma}$ ).

**Interference** – If possible, use Shielded Twisted Pair (STP) Ethernet cables instead of Unshielded Twisted Pair (UTP) .

**Interférence** – Si possible, utilisez des câbles Ethernet de paire torsadée blindée (STP) plutôt que de paire torsadée non blindée (UTP).

## Safety

**Power over Ethernet (PoE)** — Do not connect this device to PoE networks with routing to the outside plant. Use this equipment in a Network Environment 0 per IECTR 62101. Do not use PoE injectors that are not IEEE 802.3af/at compliant. They may damage your device.

**Alimentation par Ethernet** — Ce matériel doit être utilisé dans un Environnement Réseau 0 par IECTR 62101. Ce matériel est uniquement connecté aux réseaux PoE sans installation externe de routage. Cet appareil est conforme aux normes IEEE 802.3af/at. Ne pas utiliser d'autres injecteurs d'alimentation non conformes sous peine d'endommager votre matériel.

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude).

# Regulatory Compliance

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## **Federal Communication Commission (FCC) – USA**

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received; including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

**WARNING:** Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## **Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada**

CAN ICES-3 (B) / NMB-3 (B)

## **European Conformity (CE) - EU**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



# Documentation and Links

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The following Fortinet web pages provide information and resources for your Fortinet product:

- 1. Fortinet Customer Service & Support:** <https://support.fortinet.com>  
On this page you can create a support account with Fortinet, register and manage your products, download updates, firmware images and release notes, and create technical support tickets.
- 2. Fortinet Document Library:** <http://docs.fortinet.com>  
This page provides the most up-to-date versions of Fortinet publications for the entire Fortinet product family.
- 3. Technical Discussion Forums:** <https://support.fortinet.com/forum>  
This page allows you to communicate with other customers and Fortinet partners about Fortinet products, services, and configuration issues in a forum environment.
- 4. Training Services:** <http://campus.training.fortinet.com>  
This page provides course descriptions, availability, schedules, and locations of training programs in your area.
- 5. FortiGuard Threat Research and Response:** <http://www.fortiguard.com>  
This page provides up-to-date information on vulnerabilities and threats, and includes a virus scanner, Internet Protocol (IP) signature look-up, web filtering tools, and related information.

## Comments on Technical Documentation

Please send comments or information about any errors or omissions in this or any Fortinet technical documents to [techdoc@fortinet.com](mailto:techdoc@fortinet.com).

# Register Your Product

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If you have not registered your Fortinet product, please register your product now.

## Register

Register your Fortinet product in order to receive:

- Technical Support
- New product features
- Protection from new threats

## Enregistrer

Vous devez enregistrer le produit pour recevoir:

- Support technique
- Nouvelles fonctionnalités du produit
- Protection contre de nouvelles menaces

## Registra

La registrazione ti permette di usufruire di:

- Supporto Tecnico
- Nuove funzionalità
- Protezione dalle ultime minacce

## Registrar

Debe registrar el producto para recibir:

- Apoyo técnico
- Nuevas funcionalidades del producto
- Protección contra ataques

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